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A dissertation on Apoplexy

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The brain is liable to many diseases which widely differ from those affecting other parts of the body. This difference is to be ascribed to the peculiarity of its structure, the importance of its functions and the universal sympathy which subsists between this organ and the rest of the body. Of the disorders incident to the brain there is none more formidable than apoplexy none requiring more prompt and decisive treatment.

From the pathology and known causes of the disease, mankind must in all ages have been liable to apoplexy: but much lis frequently formerly than at the present time. The refinements of society having modified the habits, diet, drep exercise, and occupations of men have so infeebled their constitutions that they cannot so effectually resist morbid impressions as the ancients who had their bodies invigorated by more uniform temperature and athletic habits.

Apoplexy is a disease in which the whole of the external and internal senses, and all the vo-
-luntary motions are in some degree abolished, while respiration the action of the heart and ar-
-teries continue uninterrupted.

It commonly effects persons advanced in age, having large heads and short necks, of a cor-
-pulent habit, and who have lived an indo-
lent life, and particularly those persons who have indulged in the free use of ardent spirits, and of indigestible and stimulating articles of food. It is apt to attack persons after the suppression of any long continued evacuation, as from the hemorrhoidal vessels in men, and in women from a cessation of the catamenia. When the predisposing causes exist, a pendulous position of the head conjoined with a se-
dentary and studious life may act in such a manner as often to bring on the disease.

In some instances it attacks persons without any peculiar conformation of body, of dissipate habits and no evident predisposition.

From the different seats of the disease it has been properly divided into idiopathic and sympathetic.

When it is a primary affection of the head the attack is most frequently preceded by some precursory symptoms, as giddiness, dimness of sight, drowsiness, loss of memory, faltering of the tongue tinnitus aurium &c.

The paroxysm is known by the sudden falling of the patient, at which time the face becomes red and swollen, the veins of the head, the temples, the eyes and the neck appear tur-
-gid, the head feels hot the eyelids are half open and rigid, the eyes are prominent and fixed, with a dilatation of the pupils.

Respiration is hurried short and stertorous.

the pulse is quick, full, slow, and strong — In some instances a grinding of the teeth and among the most distinguishing symptom is a deep coma. When these symptoms continue for a time, the pulse becomes languid the respiration more laborious until it ceases altogether. In sympathetic apopleccy the attack is more gradual, it is preceded by frequent fits of in-cubus, the face is pale and often swollen, the pupils of the eyes are either dilated, or contracted, the veins are depressed, the pulse is weak irregular and intermittent, respiration is laborious and stertorous, the surface of the body is cold and flaccid exhibiting a prostration of the powers of the system. The exciting causes of idiopathic apoplexy are those which cause a determination of blood to the vessels of the head as violent passions of the mind as joy anger &c

Long continued inspiration, heat applied to the body by accelerating the circulation may produce the disease, certain positions of the head by favouring the afflux of arterial and impeding the egress of venous blood from the head may often excite the disease. It is sometimes caused by an accumulation of serum, from an increased exhalation from the minute vessels of the head.

Mechanical injuries done to the head may excite apoplexy, either by the violence of concussion on the brain, by a fragment of bone being forced in the cranium, by an effusion of blood coagulating, lymph, or pus, under the cranium, between the membranes of the brain, or in the substance of the brain, or in the ventricles, or it may happen in consequence of the inflammation which succeeds the injury.

There are certain chemical substances, which

exert great influence on the system and by their sudden and diffusibly stimulating effects, have been long enumerated as causes of apoplexy.

Exposure of the naked head to the rays of the sun in warm climates, has by imparting unusual warmth to that part increased the force and velocity of the circulation, so as to produce an instantaneous attack.

The use of a warm bath and the heat of a crowded room, often excites the disease, especially in irritable habits where there is a plethoric disposition of the bloodvessels. These are among the most important of the exciting causes, when it is a primary affection of the head.

The occasional causes of sympathetic apoplexy may be referred to those which act directly on the stomach, to others which affect

it through the medium of some part, or of the whole system, and from its indissoluble association with the brain, causes a reaction in that viscus as to disturb its functions and there to produce apoplexy.

Among the most frequent of the exciting causes which act directly on the stomach, may be ranked mechanical distention from an accumulation of food, the swallowing of indigestible articles, drinking too copious a draught of ardent spirits, or by taking some powerful narcotic into the stomach

Of the causes which secondarily affect the stomach and by that means the brain may be enumerated certain diseased conditions of the liver, the uterus, and intestinal canal. A gouty diathesis of the constitution by its concomitant gastric derangement, is not an uncommon cause of this species of apoplexy

Excessive venereal indulgence weakens the powers of digestion, increase the irritability of the nervous and arterial system, so as to produce the most violent form of this disease.

When a sufficiency of food is taken into the stomach to induce the disease, it first distends its coats, causes an enlargement of its diameter by which it preses on the vena cava ascendens, obstructs the expansion of the lungs, thereby distending the vessels of the head, destroys the office of the brain producing all the symptoms of apoplexy.

The poisons which excite the disease are either stimulant or sedative, and may be taken in such quantities as to destroy life in a very short time. By the habitual use of stimulating and narcotic

substances the chylopoetic viscera are so much deranged in their office, as to impair the energy of the nervous system, so that life is eventually destroyed by an apoplectic stroke.

From the similarity in the operations and effects of the various narcotics, an account of the phenomena and consequent effects resulting from too large a dose of opium, may suffice to distinguish that form of the disease which arises from the use of vegetable poisons.

Opium when taken into the stomach first stimulates the part to which it is applied from whence the impression is communicated to the heart and arteries, the temperature of the body is increased, there is a diminution in all the secretions and excretions except that by the skin which

which is augmented, it creates great thirst the tongue and faces become dry and parch-ed, the mind continues at this period se-rene, but there is often a fatuitous exhilara-tion of spirits: after this stat of excitement has continued for twenty or thirty minutes, the action of the sanguiferous system is dim-inished, as is evinced by the slow irregular pulse, a prostration of strength comes on, accompanied by vertigo, delirium, stupor, and an irresistible propensity to sleep, fol-lowed by a loss of voluntary motion and if not stopped in its operation life is relinquished.

Among the occasional causes which act secondarily on the stomach, may be ranked that condition of the liver in which there is a superabundant secretion of bile, which regurgitating from the

duodenum into the stomach, often excites to action the latent predisposition to the disease. Doctor Mitchar whose opinion is entitled to the highest respect, several years since met with a case in prac-tice which fully establishes this fact. A boy in fishing on the schuylkill bridge, was suddenly seized with all the symptoms of apoplexy, in addition to these there was so great an atony of the lower jaw, that his mouth was constantly open. The doctor in ex-amining his tongue or posterior fauces saw by a kind of eructation, bile in the patients mouth; and that the disease was produced by the presence of bile, was fully established, by the immediate relief which the patient ex-perienced from the operation of an emetic.

suppressed evacuations by inducing irregularity of action, or plethora, in the bloodvessels are frequent exciting causes of the disease.

The prognosis is to be drawn from a consideration of the predisposing causes, of the antecedant symptoms, of the manner in which it was excited, from the mild or aggravated form of the attack, from the effects of remedies employed and the duration of the paroxysm, together with the strength of the constitution.

To avoid an attack when a predisposition exists in the body, and when the disease has been removed, to fortify the system against a future return, are circumstances of importance in the management of the disease.

When a predisposition is known to

To assist the temperature of the body should be regulated according to the seasons of the year, and every change in the atmosphere, — The diet should be nutritive, and not stimulating and taken in small quantities, at short intervals. The exercise should be moderate, so as to induce perspiration, without fatigue, the patient should abstain from all stimulating drinks, and avoid as much as possible mental agitation. After the paroxysm has subsided to prevent the recurrence of an attack, the exciting causes are to be avoided. Every condition of the body which favours a determination of blood to the head must be shunned; overdistention of the stomach and constipation of the bowels must be prevented, the mind should be engaged about some amusing employ-

-ployment, so as to suspend the excitability of the passions and prevent a reaction on the brain. A free use of Tobacco, by increasing the irritability of the system, and by its sedative effects inducing debility, and increasing the excretion from the salivary glands should be prohibited, where there is a constant tendency to a plethoric state of the vessels in the head, actions on the scalp, or spices in the back of the neck, are highly proper, in every instance where a fit is threatened bloodletting is the only remedy on which we can depend.

In dissections of those have died of sanguineous apoplexy the arteries and veins of the head have been found in a state of distention. The sinuses of the brain have been enlarged, and in many

instances an extravasation of blood has been observed in the substance of the brain or within the ventricles.

In those who die of sympathetic apoplexy, the arteries contain less and the veins more blood than in idiopathic apoplexy. The dura mater has lost its transparency, the pia mater and plexus choroides are pale. The brain is altered in its consistence, becomeing flaccid. The left auricle and ventricle of the heart with the arteries are found empty, the pulmonary organs are engorged with blood. The stomach is much inflamed, and the intestines generally distended.

The cure of idiopathic apoplexy from the violence and fatality of its attack, requires the immediate and skilful application of remedies.

Every mechanical impediment to the circulation of the blood is to be removed, the patient should be placed in a well ventilated apartment, after this as copious, and sudden a depletion, must be made as the strength of the patient will bear, the most speedy and efficacious method of accomplishing this, is by means of bloodletting from the temporal artery or from the veins of the arm.
By abstracting blood in this disease, the quantity of fluids in the vessels of the head are diminished, the undue impetus and irregularity in the action of the arteries are corrected, moreover by allowing a contraction in the diameters of the vessels the pressure from overdistion is removed, and the functions of the brain are more or less restored.

After the system is prepared by blood-
-letting for the action of other remedies
drastic cathartics, and such as are quickest
in their operation, seem highly indi-
cated. By evacuating the alimentary
canal the quantity of circulating flu-
-ids is diminished, and by their local
stimulus, they occasion an afflux of
blood to the intestines, and thereby
cause a derivation from the head.
The purgative which answers best
is the sulphat of soda, in an infu-
-sion of senna or the latter article
combined with jalap, ~~or~~ aloes.
To answer the same end nearly and
to assist their operation, strong en-
-emata should be frequently ad-
-ministered.
When by depletion the vascular

system is so much emptyed as not to admit of a general lop of blood, the scarification, and cupping glas to the occiput, with leeches to the Temples, by unloading the superficial vessels of the scalp, will proove highly usefu- the hair being removed from the head, a large blister should be applied over the whole of the scalp, and sinapisms to the extremities, which by operating as counterirritants are very serviceable.

When the patients strength will admit, an erect posture should be preferred, as it impedes the ascent of arterial, and favours the descent of venous blood: when this is inadmissible the patient should be kept in a recumbent posture, so as not to make pressure on the vessels of the neck.

If these measures are complied with promptly and pursued to a proper extent, they are calculated to do all the good practicable in this form of the disease.

Sympathetic apoplexy as originating from different causes, and occuring often in an opposite state of the system; demands a diversity of remedies. After having premised the loss of blood, which is in many cases admissible and often absolutely necessary, we should immediately resort to emetics, which are indicated from a combination of symptoms which exists in an apoplectic paroxysm, and from the happiest effects resulting from a spontaneous vomiting whenever it has accurred. To remove the exciting causes and equalize the action of the system are the purposes for which they are prescribed.

When the excitability of the system is such that vomiting can be produced by taking an emetic a large quantity of crude and indigestible matter is evacuated by the operation. At this time a new action is excited in that viscus, by which a healthy tone is restored to it, and by determining the fluids to the surface of the body the lungs are relieved of an accumulation of blood, the respiration is rendered more free and the action of the heart and arteries more natural. By the mechanical effort of vomiting the diaphragm and abdominal muscles in pressing on the liver spleen and pancreas will often propel the accumulation of blood from these parts and thus remove obstructions which are often the primary link of the numerous morbid associations on which the disease depends.

The safety and utility of vomiting in apoplexy is evinced from their superior efficacy in mania Demeclenta, a disease which originates from the same cause, expends its violence on the same parts, affects persons of the same Temperament, and observes the same periodical returns. It is one in which the vascular system is in a manner similarly affected, as is characterized by the depressed condition of the pulse, and an undue determination of blood to the head and thoracic viscera,

After the operation of an emetic a cathartic of ~~the~~ sub muriat of mercury, and rhubarb, should be given to evacuate the alimentary canal, more thoroughly, and thereby remove a source of much irritation, and to aid its action strong clysters should be administered. Blisters and sinapisms should be applied and where one side is particularly effected they should be placed on that which is least injured.

at this period of the disease local bleed-
-ing is necessary and when apoplexy
has come on in consequence of a suppression
of hemorrhois, or epistaxis, the application
of leeches to the nostrils, or hemorrhoidal
vessels, should not be neglected.
The exciting cause of the disease being re-
-moved, from the effects of pain and the use
of the various remedies, the system will be found in
many instances reduced below the standard
of health. In this state tonics will be found
indispensible, especially in that species of the
disease which is consequent, to the use of
stimulating drinks, and they should be
graduated so as to invigorate the system,
without inducing plethora. The tonics
which answer this indication best are the
quassia, columbo, gentian, or the chalybeate
preparations, in combination with rhubarb.

When the disease has arisen in consequence of opium or any other narcotic being taken into the stomach, the matter should be evacuated as soon as possible which may sometimes be done either with a large dose of the sulphat of zinc - tartarized antimony, or ipecacuanha or by titilation of the posterior fauces with a feather. When from the exhausted vitality of the stomach, these measures fail, an instrument which has been introduced into practice in the United States by Doctor P. S. Physick, may be employed to extract laudanum, or any poisonous substance, from the stomach: after which health may be restored by means of stimulants accommodated to the excitability of the system; The carbonat of ammonia, or brandy and water injected into the stomach, are very proper remedies, clysters of turpentine,

and gum arabeck, are in this state very useful. Frictions and stripes, together with sinapisms, blisters and warm fomentations by acting as excitants, are doubtless efficacious remedies in this atonic condition of the body.